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Line Extension to the Trident® Acetabular System - Trident® Elevated Rim Liners

Special 510(k) Premarket Notification

### Special 510(k) Summary

#### Line Extension to the Trident® Acetabular System - Trident® Elevated Rim Liners

Proprietary Name:	Trident® Elevated Rim Liner
Common Name:	Artificial Hip Components
Classification Name and Reference:	Hip joint, metal/polymer/metal semi-constrained porous-coated uncemented prosthesis, 21 CFR §888.3358
Proposed Regulatory Class:	Class II
Device Product Code:	87 LPH
Predicate Proprietary Name(s):	Osteonics® Secur-Fit™ AD Generation II Acetabular Component System; and Line Extension, Osteonics® Trident® Polyethylene Inserts
Predicate Regulatory Class:	Class II
Predicate Product Code(s):	87 LPH and LZO
For Information contact:	Nancy J. Rieder Howmedica Osteonics Corp. 59 Route 17 Allendale, New Jersey 07401-1677 Phone: (201) 934-4364 Fax: (201) 760-8435

#### Description/Technological Comparison

The existing Trident® Acetabular System features acetabular liners in neutral, hooded and eccentric versions. The subject Trident® Elevated Rim Liners are an addition to the existing liners. They feature an elevated superior rim. The elevated rim is intended to provide added

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resistance to dislocation during high flexion/adduction angles. The subject liners will also be offered in five new sizes. The subject liners, like the predicate liners, are manufactured using Crossfire® polyethylene.

### **Intended Use**

The subject acetabular liners are single-use devices intended for use in total hip replacement. They are intended for mechanical assembly to predicate Trident® series acetabular shells. (The predicate Trident® series shells are intended for cementless fixation.)

### **Indications:**

- Painful, disabling joint disease of the hip resulting from: degenerative arthritis, rheumatoid arthritis, post-traumatic arthritis, or late stage avascular necrosis.
- Revision of previous failed femoral head replacement, cup arthroplasty or other procedure.
- Clinical management problems where arthrodesis or alternative reconstructive techniques are less likely to achieve satisfactory results.
- Where bone stock is of poor quality or is inadequate for other reconstructive techniques as indicated by deficiencies of the acetabulum.

### **Testing Summary**

Engineering analysis was employed to ensure that the risk of cam-out for the subject device is less than the risk associated with predicate devices. Hip wear simulator testing of a similar cup liner was used to demonstrate the comparable safety and effectiveness of the thinner liners in the subject series to the predicate devices.



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Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Elizabeth A. Staub  
Vice President  
Quality Assurance, Regulatory Affairs and Clinical Research  
Howmedica Osteonics Corp.  
59 Route 17  
Allendale, NJ 07401-1677

Re: K020497

Trade/Device Name: Trident Elevated Rim Liner  
Regulation Number: 21 CFR 888.3358  
Regulation Name: Hip joint metal/polymer/metal semi-constrained porous-coated  
uncemented prosthesis  
Regulatory Class: Class II  
Product Code: LPH  
Dated: February 12, 2002  
Received: February 14, 2002

Dear Ms. Staub:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

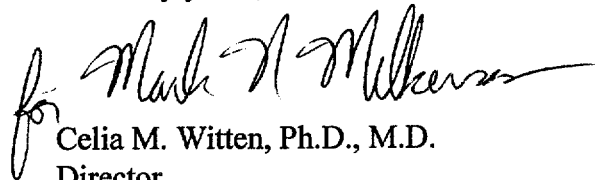
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Page 2 – Ms. Elizabeth Staub

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 21 CFR Part 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

for Celia M. Witten, Ph.D., M.D.

Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

510(k) Number (if known): K020497Device Name: Line Extension to the Trident® Acetabular System-Trident® Elevated Rim Liners

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*Indications:*

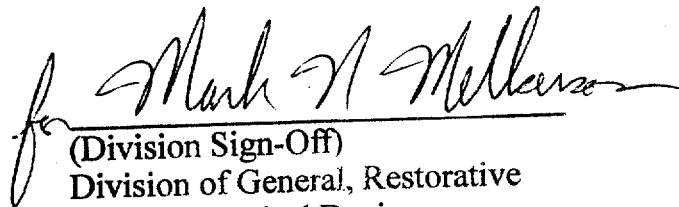
- Painful, disabling joint disease of the hip resulting from: degenerative arthritis, rheumatoid arthritis, post-traumatic arthritis, or late stage avascular necrosis.
- Revision of previous failed femoral head replacement, cup arthroplasty or other procedure.
- Clinical management problems where arthrodesis or alternative reconstructive techniques are less likely to achieve satisfactory results.
- Where bone stock is of poor quality or is inadequate for other reconstructive techniques as indicated by deficiencies of the acetabulum.

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use X OR Over-The-Counter Use \_\_\_\_\_ (Per 21 CFR 801.109)  
(Optional Format 1-2-96)

  
(Division Sign-Off)  
Division of General, Restorative  
and Neurological Devices

510(k) Number K020497